SEQUENCE LISTING

<110> KOLTERMAN, ORVILLE G.
YOUNG, ANDREW A.
RINK, TIMOTHY J.
BROWN, KATHLEEN ANN KEATING

<120> METHODS FOR REGULATING GASTROINTESTINAL MOTILITY

<130> 18528.642

<140> 10/643,681
<141> 2003-08-18

<150> 09/576,062
<151> 2000-05-22

<150> 08/302,069
<151> 1994-09-07

<150> 08/118,381
<151> 1993-09-07

<160> 31

<170> PatentIn Ver. 3.3

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<220>
<223> Disulfide bridge between the Cys residues at positions 2 and 7

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<400> 1
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val His Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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peptide construct

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Leu Gly Arg Leu Ser Gln Glu Leu His Arg Leu Gln Thr Tyr Pro Arg
1 5 10 15

Thr Asn Thr Gly Ser Asn Thr Tyr
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<400> 3
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val Arg Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
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<223> Disulfide bridge between the Cys residues at
positions 1 and 6

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<223> amidated Tyr (Tyrosinamide)

<400> 4
Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu Val
1 5 10 15

His Ser Ser Asn Asn Phe Gly Ala Ile Leu Ser Ser Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
35

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peptide construct

<220>
<223> Disulfide bridge between the Cys residues at
positions 2 and 7

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Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val His Ser Ser Asn Asn Phe Gly Ala Ile Leu Pro Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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positions 1 and 6

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Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu Val
1 5 10 15

Arg Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Ser Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
35

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Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val His Ser Ser Asn Asn Phe Gly Pro Val Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
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Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
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Val Arg Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
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positions 1 and 6

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Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu Val
1 5 10 15

Arg Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
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1 5 10 15

His Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
35

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20 25 30

Gly Ser Asn Thr Tyr
35

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Val His Ser Ser Asn Asn Leu Gly Pro Val Leu Pro Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
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positions 1 and 6

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His Ser Ser Asn Asn Leu Gly Pro Val Leu Pro Ser Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
35

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1 5 10 15

Val Arg Ser Ser Asn Asn Leu Gly Pro Val Leu Pro Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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<220>
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20 25 30

Gly Ser Asn Thr Tyr
35

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Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val Arg Ser Ser Asn Asn Leu Gly Pro Ile Leu Pro Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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<220>
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<223> amidated Tyr (Tyrosinamide)

<400> 17
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Ile His Ser Ser Asn Asn Leu Gly Pro Ile Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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<223> amidated Tyr (Tyrosinamide)

<400> 18
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Ile His Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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<220>
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<222> (36)
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Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu Ile
1 5 10 15

His Ser Ser Asn Asn Leu Gly Pro Ile Leu Pro Pro Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
35

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Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Ile Arg Ser Ser Asn Asn Leu Gly Ala Ile Leu Ser Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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<220>
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1 5 10 15

Ile Arg Ser Ser Asn Asn Leu Gly Ala Val Leu Ser Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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positions 2 and 7

<220>
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1 5 10 15

Ile Arg Ser Ser Asn Asn Leu Gly Pro Val Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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positions 2 and 7

<220>
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<400> 23
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Thr Asn Phe Leu
1 5 10 15

Val His Ser Ser His Asn Leu Gly Ala Ala Leu Leu Pro Thr Asp Val
20 25 30

Gly Ser Asn Thr Tyr

35

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<220>
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<400> 24
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Thr Asn Phe Leu
1 5 10 15

Val His Ser Ser His Asn Leu Gly Ala Ala Leu Ser Pro Thr Asp Val
20 25 30

Gly Ser Asn Thr Tyr
35

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<220>
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His Ser Ser His Asn Leu Gly Ala Ala Leu Pro Ser Thr Asp Val Gly
20 25 30

Ser Asn Thr Tyr
35

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1 5 10 15

Val Arg Ser Ser His Asn Leu Gly Ala Ala Leu Ser Pro Thr Asp Val
20 25 30

Gly Ser Asn Thr Tyr
35

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<220>
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1 5 10 15

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20 25 30

Gly Ser Asn Thr Tyr
35

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<223> Disulfide bridge between the Cys residues at positions 2 and 7

<220>
<221> MOD_RES
<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 28
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Thr Asn Phe Leu
1 5 10 15

Val Arg Ser Ser His Asn Leu Gly Pro Ala Leu Pro Pro Thr Asp Val
20 25 30

Gly Ser Asn Thr Tyr
35

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1 5 10 15

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20 25

<210> 30

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<220>
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1 5 10 15

Arg Thr Asn Thr Gly Ser Gly Thr Pro
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Lys

<220>
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<222> (2)
<223> Variable amino acid

<220>
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<222> (7)
<223> Variable amino acid

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<223> Val, Leu, or Ile

<220>

<221> MOD_RES
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<223> His or Arg

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<222> (19)
<223> Ser or Thr

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<223> Ser, Thr, Gln, or Asn

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<223> Asn, Gln, or His

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<223> Ser, Pro, Leu, Ile, or Thr

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<222> (29)
<223> Ser, Pro, or Thr

<220>
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1 5 10 15

Xaa Xaa Xaa Xaa Xaa Asn Xaa Gly Xaa Xaa Leu Xaa Xaa Thr Xaa Val
20 25 30

Gly Ser Asn Thr Tyr

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RINK, TIMOTHY J.
BROWN, KATHLEEN ANN KEATING

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<140> 10/643,681
<141> 2003-08-18

<150> 09/576,062
<151> 2000-05-22

<150> 08/302,069
<151> 1994-09-07

<150> 08/118,381
<151> 1993-09-07

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<170> PatentIn Ver. 3.3

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<220>
<223> Disulfide bridge between the Cys residues at positions 2 and 7

<220>
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<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 1
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val His Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

<210> 2
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide construct

<220>
<221> MOD_RES
<222> (24)
<223> amidated Tyr (Tyrosinamide)

<400> 2
Leu Gly Arg Leu Ser Gln Glu Leu His Arg Leu Gln Thr Tyr Pro Arg
1 5 10 15

Thr Asn Thr Gly Ser Asn Thr Tyr
20

<210> 3
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peptide construct

<220>
<223> Disulfide bridge between the Cys residues at
positions 2 and 7

<220>
<221> MOD_RES
<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 3
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val Arg Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

<210> 4
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peptide construct

<220>
<223> Disulfide bridge between the Cys residues at
positions 1 and 6

<220>
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<222> (36)
<223> amidated Tyr (Tyrosinamide)

<400> 4
Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu Val
1 5 10 15

His Ser Ser Asn Asn Phe Gly Ala Ile Leu Ser Ser Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
35

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<220>
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1 5 10 15

Val His Ser Ser Asn Asn Phe Gly Ala Ile Leu Pro Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu Val
1 5 10 15

Arg Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Ser Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
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<400> 7
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val His Ser Ser Asn Asn Phe Gly Pro Val Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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<220>
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<220>
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<223> amidated Tyr (Tyrosinamide)

<400> 8
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val Arg Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
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<223> amidated Tyr (Tyrosinamide)

<400> 9
Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu Val
1 5 10 15

Arg Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
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<223> Description of Artificial Sequence: Synthetic peptide construct

<220>
<223> Disulfide bridge between the Cys residues at positions 1 and 6

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<400> 10
Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu Val
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His Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
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<221> MOD_RES
<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 11
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val His Ser Ser Asn Asn Leu Gly Pro Val Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

<210> 12
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide construct

<220>
<223> Disulfide bridge between the Cys residues at positions 2 and 7

<220>
<221> MOD_RES
<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 12
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val His Ser Ser Asn Asn Leu Gly Pro Val Leu Pro Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

<210> 13
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide construct

<220>
<223> Disulfide bridge between the Cys residues at positions 1 and 6

<220>
<221> MOD_RES
<222> (36)
<223> amidated Tyr (Tyrosinamide)

<400> 13
Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu Val
1 5 10 15

His Ser Ser Asn Asn Leu Gly Pro Val Leu Pro Ser Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
35

<210> 14
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide construct

<220>
<223> Disulfide bridge between the Cys residues at positions 2 and 7

<220>
<221> MOD_RES
<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 14
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val Arg Ser Ser Asn Asn Leu Gly Pro Val Leu Pro Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

<210> 15

<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide construct

<220>
<223> Disulfide bridge between the Cys residues at
positions 2 and 7

<220>
<221> MOD_RES
<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 15
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val Arg Ser Ser Asn Asn Leu Gly Pro Ile Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

<210> 16
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide construct

<220>
<223> Disulfide bridge between the Cys residues at
positions 2 and 7

<220>
<221> MOD_RES
<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 16
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val Arg Ser Ser Asn Asn Leu Gly Pro Ile Leu Pro Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

<210> 17
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide construct

<220>
<223> Disulfide bridge between the Cys residues at positions 2 and 7

<220>
<221> MOD_RES
<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 17
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Ile His Ser Ser Asn Asn Leu Gly Pro Ile Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

<210> 18
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide construct

<220>
<223> Disulfide bridge between the Cys residues at positions 2 and 7

<220>
<221> MOD_RES
<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 18
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Ile His Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

<210> 19
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

peptide construct

<220>
<223> Disulfide bridge between the Cys residues at positions 1 and 6

<220>
<221> MOD_RES
<222> (36)
<223> amidated Tyr (Tyrosinamide)

<400> 19
Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu Ile
1 5 10 15

His Ser Ser Asn Asn Leu Gly Pro Ile Leu Pro Pro Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
35

<210> 20
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide construct

<220>
<223> Disulfide bridge between the Cys residues at positions 2 and 7

<220>
<221> MOD_RES
<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 20
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Ile Arg Ser Ser Asn Asn Leu Gly Ala Ile Leu Ser Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

<210> 21
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide construct

<220>

<223> Disulfide bridge between the Cys residues at
positions 2 and 7

<220>
<221> MOD_RES
<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 21
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Ile Arg Ser Ser Asn Asn Leu Gly Ala Val Leu Ser Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

<210> 22
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide construct

<220>
<223> Disulfide bridge between the Cys residues at
positions 2 and 7

<220>
<221> MOD_RES
<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 22
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Ile Arg Ser Ser Asn Asn Leu Gly Pro Val Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

<210> 23
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide construct

<220>
<223> Disulfide bridge between the Cys residues at
positions 2 and 7

<220>
<221> MOD_RES
<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 23
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Thr Asn Phe Leu
1 5 10 15

Val His Ser Ser His Asn Leu Gly Ala Ala Leu Leu Pro Thr Asp Val
20 25 30

Gly Ser Asn Thr Tyr
35

<210> 24
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide construct

<220>
<223> Disulfide bridge between the Cys residues at positions 2 and 7

<220>
<221> MOD_RES
<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 24
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Thr Asn Phe Leu
1 5 10 15

Val His Ser Ser His Asn Leu Gly Ala Ala Leu Ser Pro Thr Asp Val
20 25 30

Gly Ser Asn Thr Tyr
35

<210> 25
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide construct

<220>
<223> Disulfide bridge between the Cys residues at positions 1 and 6

<220>
<221> MOD_RES
<222> (36)

<223> amidated Tyr (Tyrosinamide)

<400> 25
Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Thr Asn Phe Leu Val
1 5 10 15

His Ser Ser His Asn Leu Gly Ala Ala Leu Pro Ser Thr Asp Val Gly
20 25 30

Ser Asn Thr Tyr
35

<210> 26
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide construct

<220>
<223> Disulfide bridge between the Cys residues at positions 2 and 7

<220>
<221> MOD_RES
<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 26
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Thr Asn Phe Leu
1 5 10 15

Val Arg Ser Ser His Asn Leu Gly Ala Ala Leu Ser Pro Thr Asp Val
20 25 30

Gly Ser Asn Thr Tyr
35

<210> 27
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide construct

<220>
<223> Disulfide bridge between the Cys residues at positions 2 and 7

<220>
<221> MOD_RES
<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 27

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Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Thr Asn Phe Leu
  1               5                  10                  15

Val Arg Ser Ser His Asn Leu Gly Ala Ile Leu Pro Pro Thr Asp Val
             20                  25                  30

Gly Ser Asn Thr Tyr
         35
```

<210> 28
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide construct

<220>
<223> Disulfide bridge between the Cys residues at positions 2 and 7

<220>
<221> MOD_RES
<222> (37)
<223> amidated Tyr (Tyrosinamide)

<400> 28

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Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Thr Asn Phe Leu
  1               5                  10                  15

Val Arg Ser Ser His Asn Leu Gly Pro Ala Leu Pro Pro Thr Asp Val
             20                  25                  30

Gly Ser Asn Thr Tyr
         35
```

<210> 29
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide construct

<220>
<221> MOD_RES
<222> (25)
<223> amidated Tyr (Tyrosinamide)

<400> 29

```
Val Leu Gly Lys Leu Ser Gln Glu Leu His Lys Leu Gln Thr Tyr Pro
  1               5                  10                  15

Arg Thr Asn Thr Gly Ser Asn Thr Tyr
             20                  25
```

<210> 30
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide construct

<220>
<221> MOD_RES
<222> (25)
<223> amidated Pro (Prolinamide)

<400> 30
Val Leu Gly Lys Leu Ser Gln Glu Leu His Lys Leu Gln Thr Tyr Pro
1 5 10 15

Arg Thr Asn Thr Gly Ser Gly Thr Pro
20 25

<210> 31
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide construct

<220>
<221> MOD_RES
<222> (1)
<223> Lys, Ser, Ala, des-alpha-amino Lys, or acetylated
Lys

<220>
<221> MOD_RES
<222> (2)
<223> Variable amino acid

<220>
<221> MOD_RES
<222> (7)
<223> Variable amino acid

<220>
<221> MOD_RES
<222> (13)
<223> Ala, Ser, or Thr

<220>
<221> MOD_RES
<222> (17)
<223> Val, Leu, or Ile

<220>
<221> MOD_RES
<222> (18)
<223> His or Arg

<220>
<221> MOD_RES
<222> (19)
<223> Ser or Thr

<220>
<221> MOD_RES
<222> (20)
<223> Ser, Thr, Gln, or Asn

<220>
<221> MOD_RES
<222> (21)
<223> Asn, Gln, or His

<220>
<221> MOD_RES
<222> (23)
<223> Phe, Leu, or Tyr

<220>
<221> MOD_RES
<222> (25)
<223> Ala or Pro

<220>
<221> MOD_RES
<222> (26)
<223> Ile, Val, Ala, or Leu

<220>
<221> MOD_RES
<222> (28)
<223> Ser, Pro, Leu, Ile, or Thr

<220>
<221> MOD_RES
<222> (29)
<223> Ser, Pro, or Thr

<220>
<221> MOD_RES
<222> (31)
<223> Asn, Asp, or Gln

<400> 31
Xaa Xaa Asn Thr Ala Thr Xaa Ala Thr Gln Arg Leu Xaa Asn Phe Leu
1 5 10 15

Xaa Xaa Xaa Xaa Xaa Asn Xaa Gly Xaa Xaa Leu Xaa Xaa Thr Xaa Val
20 25 30

Gly Ser Asn Thr Tyr
35